IN THE CLAIMS

This listing of claims replaces all prior versions and listing of claims in the application:

1. (previously presented) A tunable single mode laser microassembly operable over a range of wavelengths comprising a source for providing a light along an optical path with any wavelength from the range of wavelengths, a diffractive element positioned in the optical path and spaced from the source by a first distance to redirect the light, a reflective element positioned in the optical path and spaced from the diffractive element by a second distance to receive the redirected light from the diffractive element and to redirect the light back towards the diffractive element, the light being redirected by the diffractive element back towards the source, and an electromechanical micro-actuator coupled to one of the diffractive element and the reflective element for causing angular movement of such element to permit selection of a single wavelength from the range of wavelengths by altering the optical path of the light.

2. (previously presented) The laser microassembly of Claim 1, wherein the first distance and the second distance define an optical path length between the source and the reflective element measured in wavelengths, and wherein the optical path length remains constant over the range of wavelengths.

3. (previously presented) The laser microassembly of Claim 1 wherein the micro-actuator is coupled to the reflective element to cause angular movement of the reflective element.

4. (previously presented) The laser microassembly of Claim 1, wherein the electromechanical micro-actuator provides sufficient angular movement of such element to permit selection of a single wavelength from a range of wavelengths extending over approximately 40 nanometers.

5. (previously presented) The laser microassembly of Claim 1, wherein the angular movement occurs about a virtual pivot point.

6. (previously presented) The laser microassembly of Claim 1, wherein the angular movement comprises a translation and a rotation.

7. (previously presented) The laser microassembly of Claim 1, wherein the micro-actuator comprises a micro-machined actuator.

8. (previously presented) The laser microassembly of Claim 7, wherein the micro-machined actuator is coupled to the reflective element.

9. (previously presented) The laser microassembly of Claim 8, wherein the reflective element comprises a retro-reflector.

10. (previously presented) The laser microassembly of claim 1, wherein the range of wavelengths comprises from about 1520nm to about 1560nm.

11. (previously presented) The laser microassembly of Claim 1, wherein the electromechanical micro-actuator is an electrostatic micro-actuator.

12. (previously presented) The laser microassembly of Claim 10, wherein the micro-actuator is a rotatable micro-actuator.

13. (previously presented) A tunable laser comprising source means for providing a light along an optical path with any wavelength selected from a bandwidth of wavelengths, a diffractive element positioned in the optical path and spaced from the source by a first distance to redirect the light, a reflective element positioned in the optical path and spaced from the diffractive element by a second distance to receive the redirected light from the diffractive element and to redirect the light back towards the diffractive element, the light being redirected by the diffractive element back towards the source, and an electrically-driven micro-actuator for selecting the wavelength from the bandwidth of wavelengths by altering the optical path of the light between the diffractive element and the reflective element, the micro-actuator including a substrate and at least one rotary comb drive carried by the substrate.

14. (original) The tunable laser of Claim 13, wherein the source comprises a Fabry-Perot laser.

15. (original) The tunable laser of Claim 13, wherein the micro-actuator comprises a micro-machined actuator.

16. (previously presented) A method for using a tunable single mode laser microassembly to provide light with any wavelength selected from a range of wavelengths, comprising the steps of providing the light along an optical path, providing a diffractive element in the optical path to diffract the light, providing a reflective element in the optical path to reflect the light and selecting a single wavelength of light by altering the optical path of the light by means of a micro-actuator coupled to the reflective element for causing angular movement of the reflective element.

17. (previously presented) The method of Claim 16, wherein the micro-actuator is an electrostatic micro-actuator.

18. (previously presented) The method of Claim 16, wherein the selecting step includes the step of moving the reflective element by a translation and a rotation.

19. (previously presented) The method of Claim 16, wherein the selecting step includes the step of moving the reflective element about a virtual pivot point.

20. (previously presented) The method of Claim 16, further comprising the step of selecting the particular wavelength from a range of wavelengths comprising the range of from about 1520nm to about 1560nm.